

FIG. 1

The diagram shows the timing of various bus phases relative to a 250 MHz bus clock. The clock cycles are labeled 1, 2, 3, 4, 5, n+5, and n+6. A thick vertical bar indicates a busy period from the start of cycle n+5 to the end of cycle n+6.

- Bus Clock 250 MHz:** A periodic square wave.
- Arbitration Phase:** A single cycle spanning from the start of cycle 1 to the start of cycle 3.
- Command Phase:** A single cycle spanning from the start of cycle 3 to the start of cycle 4.
- Snoop Phase:** A multi-cycle phase spanning from the start of cycle 4 to the start of cycle n+5.
- Reply Phase:** A single cycle spanning from the start of cycle n+6 to the start of cycle n+7.
- Data Transfer:** A single cycle spanning from the start of cycle n+6 to the start of cycle n+7.

fig 2

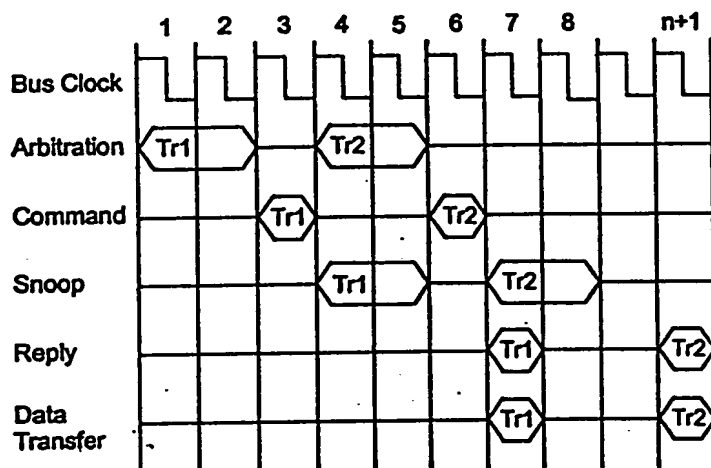


Fig. 3

Signal Function	Signal Name	Signal Direction ^a	Number of Signals
Global Bus Control Signals			
Bus Clock	OcsbClk	Input	1
Initialization	OcsbReset, OcsbInit	Input	2
Flush	OcsbFlush	Input	1
Arbitration Phase Signals			
Processor Agent Bus Request	OcsbProcBusReq[3:0]	Output	4
Memory or I/O Agent Bus Request	OcsbMemIOBusReq	Output	1
Processor Agent Bus Grant	OcsbProcBusGrant[3:0]	Input	4
Memory or I/O Agent Bus Grant	OcsbMemIOBusGrant	Input	1
Command Phase Signals			
Address Strobe	OcsbAddrStrb	Bidirectional	1
Command	OcsbCmd[3:0]	Bidirectional	4
Address	OcsbAddr[35:0]	Bidirectional	36
Snoop Phase Signals			
Hit a Shared State Cache Line	OcsbHitShrd	Bidirectional	1
Hit a Modified State Cache Line	OcsbHitMod	Bidirectional	1
Reply Phase Signals			
Reply Status	OcsbRplySts[2:0]	Bidirectional	3
Destination Ready for Writes	OcsbDstnRdy	Bidirectional	1
Data Phase Signals			
Data Ready	OcsbDataRdy	Bidirectional	1
Data	OcsbData[255:0]	Bidirectional	256

MPOC On-Chip System Bus Signals

Fig. 4

094639-0260
F09220-053760

Command Type	OcsbCmd[3:0]			
	3	2	1	0
Memory Instruction Read	0	0	0	0
Memory Data Read	0	0	0	1
Memory Read and Invalidate	0	0	1	0
Memory Write	0	0	1	1
I/O Read	0	1	0	0
I/O Write	0	1	0	1
Interrupt Acknowledge	0	1	1	0
Invalidate Acknowledge	0	1	1	1
Special Transactions	Reserved			

Command Types Defined by OcsbCmd[3:0] Signals

Fig. 5

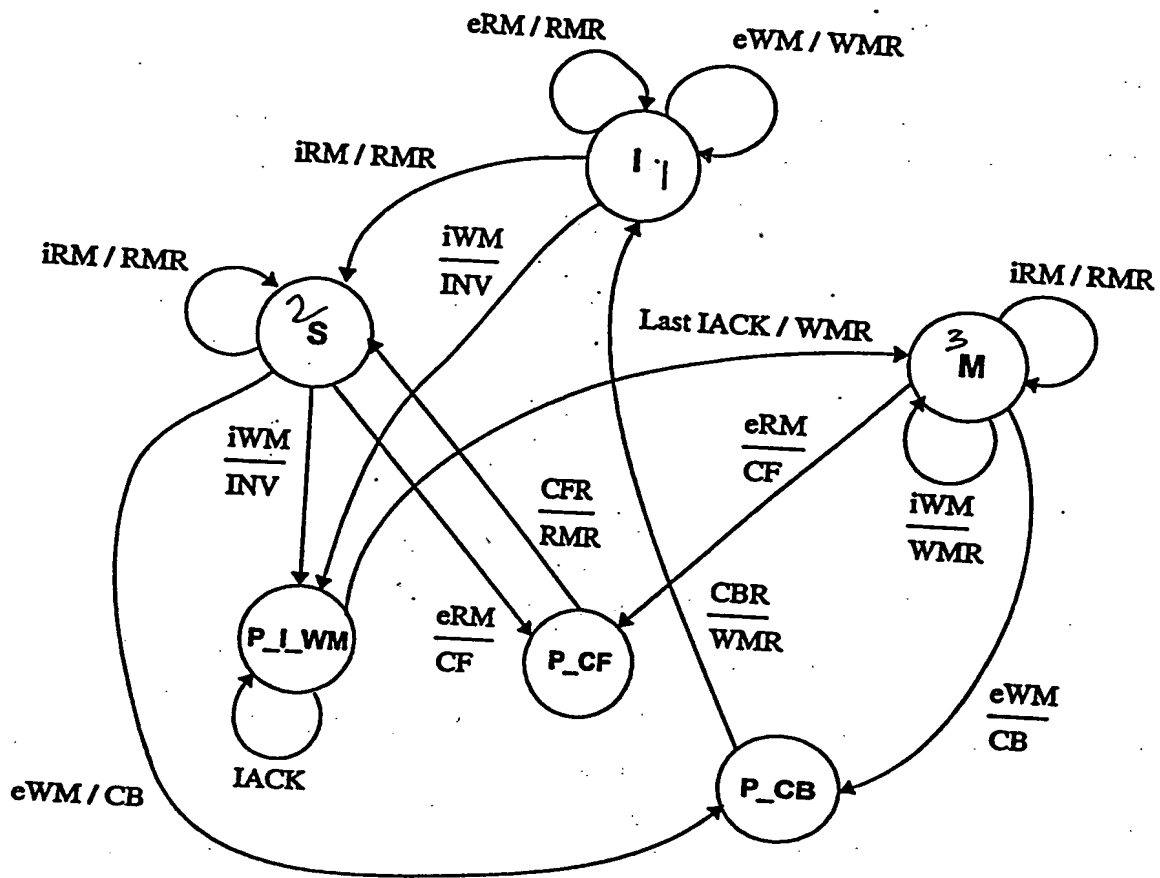


Fig. 7

00016590 07301
"00000" 00591600